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(54) Title: COMMUNICATION BETWEEN A PRIVATE NETWORK AND A ROAMING MOBILE TERMINAL
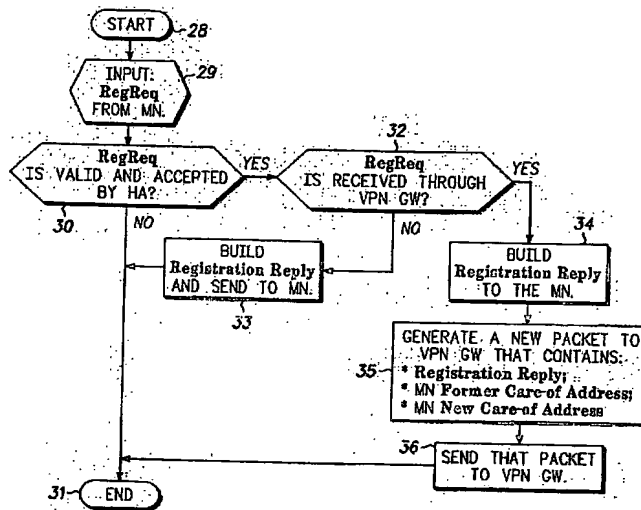
(57) Abstract: Communication between a private network (1) and a roamning mobile terminal (4), the private network (1) including a home agent (5) for the mobile terminal and a gateway (2, 3) through which, the communicationpassesand which-provides security protection for the private network (1).The protocolsof thecommunication Including security association bundles each include a security association between the mobile terminal (4) and the gateway (2, 3) for inbound communication and another security association for outbound communication. In response to a handover of communication causing an IP address. (MN Co @) of the mobile terminal (4), to change to a new IP address (MN: New Co @), the mobile termlnal updates its inbound security association from the, gateway (2, 3) so that it can receive packets sent to it with the new IP address (MN New Co @) as destination. It sends a first signalllng message with: the home agent (5) as destination: in a secure tunnel (20') to the gateway (2, 3), indicating the new IP address (MN,New Co @) in secure form to the home agent (5). The inbound security association of the gateway (2, 3) from the mobile terminal (4) accets,the first signalling message without cheking its source address. The gatewa (2, 3) forwards the first signalling message within the private network (1) to the home agent (5), the home agent (5) checks the validity of the first signalling message and, if It is valid, updates its address data and sends a second signalling message to the gateway (2,3) indicating the new address (MN New Co @). The gateway (2, 3) updates its outbound security association with the mobile terminal (4) in response to the new address (MN New Co @) indicated. Preferably, communication between the mobile node (4) and the gateway (2, 3) is in accordance with IPsec and an Encapsulating Security Paypépad protocol used in tunnel mode. Peferably, a registration reply for the mobile node (4) is included In the second signalling message

GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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